0570
1025   #2

OIPE

P.5

RAW SEQUENCE LISTING   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481   TIME: 08:51:06

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

```
      1 <110> APPLICANT: Byrum, Joseph R.
      2         Heck, Gregory R.
      3         La Rosa, Thomas J.
      5 <120> TITLE OF INVENTION: Nucleic Acid Molecules And Other Molecules Associated With
      6         Plants
      8 <130> FILE REFERENCE: 38-21(15367)C
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/960,481
C--> 10 <141> CURRENT FILING DATE: 2001-09-24
     10 <150> PRIOR APPLICATION NUMBER: US 09/306,349
     11 <151> PRIOR FILING DATE: 1999-05-10
     13 <160> NUMBER OF SEQ ID NOS: 53893
     15 <210> SEQ ID NO: 1
     16 <211> LENGTH: 300
     17 <212> TYPE: DNA
     18 <213> ORGANISM: Glycine max
     20 <223> OTHER INFORMATION: Clone ID: 701036901H1
     22 <400> SEQUENCE: 1
     24 tgtaaatctc aagatcagat cctcatctac caccattcca ggtgtagcca tcaaaacaac   60
     26 gtttgtttaa caaaacccat tatcagatca gatccgatca gatcctcttc agattcggat  120
     28 caccgccgag tccatgagca cgccagcgct ttcagggggc acgggcctct tctctggatt  180
     30 cacgcgttta tgcaagggcc ttgcggtggt gcttgtttgc ggtcacattg cggttcagtt  240
     32 tatcccttca gctgttaact atcttgctct tattcccgcc aggacaatcc catttgcctg  300
     35 <210> SEQ ID NO: 2
     36 <211> LENGTH: 297
     37 <212> TYPE: DNA
     38 <213> ORGANISM: Glycine max
     40 <223> OTHER INFORMATION: Clone ID: 701036902H1
     42 <400> SEQUENCE: 2
     44 aaattacata gcctcaataa tctgagagag aaacaaaaac aatgaaggtt tccattgcca   60
     46 agttccactc ccttccccta tgttttttcc ttctcttggc cttcaacaca aaacccctcc  120
     48 tagcagcaga accagagcca gtggttgata agcaagggaa ccctttggag ccaggagtag  180
     50 ggtactacgt gtggccactt tgggctgatg aaggaggcct cacactaggc caaacaagga  240
     52 acaagacatg ccctctttat gttatccgtg acccttcatt cattggcacc ccatttc     297
     55 <210> SEQ ID NO: 3
     56 <211> LENGTH: 295
     57 <212> TYPE: DNA
     58 <213> ORGANISM: Glycine max
     60 <220> FEATURE:
     61 <221> NAME/KEY: unsure
     62 <222> LOCATION: (1)..(295)
     63 <223> OTHER INFORMATION: unsure at all n locations
     64 <223> OTHER INFORMATION: Clone ID: 701036903H1
     66 <400> SEQUENCE: 3
     68 gcctagccat tgatttggaa aagtccaagc ttcaaagatg agtaagcttc agagtgatgc   60
W--> 70 tcttagagaa gctatctcan gaatcatgac tgattccaag gaaaagaaca ggaaatttgt  120
     72 ggagaccatt gaactccaaa ttgggctgaa aaactatgat ccccagaagg acaagcgttt  180
W--> 74 tantggctct gttaagttgc ctcacattcc tcgccccaag atgaagattt gtatgcttgg  240
```

ENTERED

RAW SEQUENCE LISTING   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481   TIME: 08:51:06

          Input Set : D:\15367C seq listing.txt
          Output Set: N:\CRF3\10102001\I960481.raw

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 76 agatgcccaa cacgttgaag aggctgagaa gataggattg gactacatgg atgtc       295
 79 <210> SEQ ID NO: 4
 80 <211> LENGTH: 291
 81 <212> TYPE: DNA
 82 <213> ORGANISM: Glycine max
 84 <223> OTHER INFORMATION: Clone ID: 701036904H1
 86 <400> SEQUENCE: 4
 88 tttttcttct atgaacacat ggtggctgag ttgaggggaa gtacttagaa acagaaacac    60
 90 agagatgaaa ccagaaacat ctctgaactt tactttgatg ctgactttct tactttatct   120
 92 gaacttggtt atgggagtgc tgagcgttga tcattatcgc agagttgact ttcctgatga   180
 94 attcgttttt ggttcaggca cctctgctta tcaggtggaa ggagcttcta acgaagatgg   240
 96 gagaactcct agcatctggg ataccttgc ccatgcggtg tatgagcagg a            291
 99 <210> SEQ ID NO: 5
100 <211> LENGTH: 292
101 <212> TYPE: DNA
102 <213> ORGANISM: Glycine max
104 <223> OTHER INFORMATION: Clone ID: 701036905H1
106 <400> SEQUENCE: 5
108 gtttttgccc accacttttg cttttctgc tcaaattctg tgctcatcgc cctcgtcgtg    60
110 ttcactttgt cactgctaat ggcatttttg ctggggaaac ggcgctcttc gcaaaacgaa   120
112 ttggcaaaac ggcgcagaga caaatcgcca gaaggcattg aattggagga gaatcccgag   180
114 gtgttcaaaa gttctttgct gaaggactcc aaagaacaca tcatcagtac gtactttcct   240
116 gatgtgcgca cacttttcga tgctttccaa cgcggtctca aattgccgaa ca           292
119 <210> SEQ ID NO: 6
120 <211> LENGTH: 293
121 <212> TYPE: DNA
122 <213> ORGANISM: Glycine max
124 <220> FEATURE:
125 <221> NAME/KEY: unsure
126 <222> LOCATION: (1)..(293)
127 <223> OTHER INFORMATION: unsure at all n locations
128 <223> OTHER INFORMATION: Clone ID: 701036906H1
130 <400> SEQUENCE: 6
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```
W--> 132 caaattttcg gatctcttct gtttcttcga atncaaaacc ctaattcccc caatttcatt    60
    134 tttcaacctt gaaaaacctt ctctctctct ctcagttccc aacggtcatc accacagctc   120
    136 gatcaacagg gacatatttg ctactgaaga gatgtctcct gcttccaaat ctaagtctaa   180
    138 agacaaaaat gctggcaagg aagctcaaaa gtcttctgcc aagtcttcag gatctggtaa   240
    140 tgccgtggct ggtgtaccag ctagtgcata caatcctttg tcgggaacat cca          293
```

```
143 <210> SEQ ID NO: 7
144 <211> LENGTH: 292
145 <212> TYPE: DNA
146 <213> ORGANISM: Glycine max
148 <223> OTHER INFORMATION: Clone ID: 701036907H1
150 <400> SEQUENCE: 7
152 ggcactcaaa cattgtttgt tgtaggaaga ggaatcttga gaaatggcag gggacagcaa    60
154 gagcaagatt ctgttcatcg gagggactgg ttacatcgga aaattcatcg tggaagccag   120
156 cgccaaagct ggccacccaa ctttcctttt ggtgagggag tccactctct ccaaccccgc   180
158 aaaatcatcc ctcatcgaca atttcaaagg cctcggtgtc aatcttgttt tcggagatct   240
160 atacgatcac caaagtttgg tgagtgctat aaagcaggtc gatgtggtaa tt           292
```

RAW SEQUENCE LISTING   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481 TIME: 08:51:06

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

```
        163 <210> SEQ ID NO: 8
        164 <211> LENGTH: 86
        165 <212> TYPE: DNA
        166 <213> ORGANISM: Glycine max
        168 <220> FEATURE:
        169 <221> NAME/KEY: unsure
        170 <222> LOCATION: (1)..(86)
        171 <223> OTHER INFORMATION: unsure at all n locations
        172 <223> OTHER INFORMATION: Clone ID: 701036908H1
        174 <400> SEQUENCE: 8
W--> 176 gaaaaanaaa aaaacngaac aactacngaa antcaaaacc aacttaaatt tnttatggat   60
W--> 178 ccannttnca tnggttangt tgtttt                                       86
        181 <210> SEQ ID NO: 9
        182 <211> LENGTH: 293
        183 <212> TYPE: DNA
        184 <213> ORGANISM: Glycine max
        186 <220> FEATURE:
        187 <221> NAME/KEY: unsure
        188 <222> LOCATION: (1)..(293)
        189 <223> OTHER INFORMATION: unsure at all n locations
        190 <223> OTHER INFORMATION: Clone ID: 701036909H1
        192 <400> SEQUENCE: 9
W--> 194 tcaaaccaaa aaacacaaca aaaganagan agaaaganac aaagagttcc ttgctttgta  60
W--> 196 gtaagatata tccatcaaaa atggttttgt cttggactag aaganacgtt ttccgccgtg 120
W--> 198 cnaagaaggn gaaggaacaa agtcaactat tagaagttga ggttgtgatt cccaaccact 180
        200 ttcgctgtcc ggtgagtttg gagctgatga cagatccggt gactttatca accggcatta 240
        202 cctacgaccg tgtgagcatc gagaagtgga tcgagggaga aaacagaacc tgc         293
        205 <210> SEQ ID NO: 10
        206 <211> LENGTH: 141
        207 <212> TYPE: DNA
        208 <213> ORGANISM: Glycine max
        210 <220> FEATURE:
        211 <221> NAME/KEY: unsure
        212 <222> LOCATION: (1)..(141)
        213 <223> OTHER INFORMATION: unsure at all n locations
        214 <223> OTHER INFORMATION: Clone ID: 701036910H1
        216 <400> SEQUENCE: 10
W--> 218 tggagtttta ntttaaacta tggctatggt aatggaaaac cgncgttttt ncgtgttttc  60
W--> 220 accactttcg tttcttgatc agagtcaccc cccaaaaaca aggcctaant cgccttcttc 120
W--> 222 ctctttccct tctttntttt t                                           141
        225 <210> SEQ ID NO: 11
        226 <211> LENGTH: 290
        227 <212> TYPE: DNA
        228 <213> ORGANISM: Glycine max
        230 <220> FEATURE:
        231 <221> NAME/KEY: unsure
        232 <222> LOCATION: (1)..(290)
        233 <223> OTHER INFORMATION: unsure at all n locations
        234 <223> OTHER INFORMATION: Clone ID: 701036911H1
```

RAW SEQUENCE LISTING   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481   TIME: 08:51:06

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

```
       236 <400> SEQUENCE: 11
       238 ctcccgcatc tcctcgtcgc tccgccacgc cttcgcgcag gccgacccgt ggacggagct    60
       240 catcgaccgg agctccatgt cccgacccga caccctcgcc gaagcatact ctcggatccg   120
W-->   242 taagaacttc gcctanttcc gcgtcaatta cctaacccta atcgtgttgg cgctcgcggt   180
       244 ctcgctcatc acgcatccgt tctcgctatt cgtcctcttc ggtctcctcg cgtcgtggtc   240
W-->   246 gttcctttat ctctttcgcc cttcggatca gcctgtcgtc ntcttcggac              290
       249 <210> SEQ ID NO: 12
       250 <211> LENGTH: 285
       251 <212> TYPE: DNA
       252 <213> ORGANISM: Glycine max
       254 <220> FEATURE:
       255 <221> NAME/KEY: unsure
       256 <222> LOCATION: (1)..(285)
       257 <223> OTHER INFORMATION: unsure at all n locations
       258 <223> OTHER INFORMATION: Clone ID: 701036912H1
       260 <400> SEQUENCE: 12
W-->   262 ggtgacgaga gccaccaccc accaccgcaa gcgcaantga aaaggttact gaagttggat    60
W-->   264 ggtacnttct ggcgaggat caacaacaga ttggccctta cgccttctct gagttgtgcc   120
       266 agcatttctt gaatggatac ctctccgaaa atacgtttgt gtggtctgaa ggaagtagtg   180
       268 agtggcagcc cttgtcctcg gtttctgacc tgtgggctca aattaaccgg caggacctga   240
       270 ttcttcaact actgtgtctg ctcctgatgt tgatgagttt gaaag                   285
       273 <210> SEQ ID NO: 13
       274 <211> LENGTH: 289
       275 <212> TYPE: DNA
       276 <213> ORGANISM: Glycine max
       278 <220> FEATURE:
       279 <221> NAME/KEY: unsure
       280 <222> LOCATION: (1)..(289)
       281 <223> OTHER INFORMATION: unsure at all n locations
       282 <223> OTHER INFORMATION: Clone ID: 701036913H1
       284 <400> SEQUENCE: 13
       286 cacttcttga accgtgcctt aactaaacta gagctagaat tagagttagc taccttgcct    60
W-->   288 aattcacaaa cgcgtccctc tacggctcta cctattagct atcttntttg tgctgtgatt   120
       290 gaaattaatt tgtgatagct caccatggcc attgctactt gtgatcatga taagaacgca   180
W-->   292 aaggctttgc agttcattga ggatatgacc caaaacactg aaagtgtcca aganagggtc   240
W-->   294 cttgctgaga ttctcagcca aaactcccag accgaatacc tganacggt              289
       297 <210> SEQ ID NO: 14
       298 <211> LENGTH: 282
       299 <212> TYPE: DNA
       300 <213> ORGANISM: Glycine max
       302 <220> FEATURE:
       303 <221> NAME/KEY: unsure
       304 <222> LOCATION: (1)..(282)
       305 <223> OTHER INFORMATION: unsure at all n locations
       306 <223> OTHER INFORMATION: Clone ID: 701036914H1
       308 <400> SEQUENCE: 14
W-->   310 actgatcata aatcacatag ctagttgttt aaagtgagag anaaagaaag aagaanatgg    60
       312 caaactttcc agttgttgac atggggaaac ttaacaccga agagagagca gcagccatgg   120
W-->   314 agattataaa anatgcctgt gagaactggg gtttctttga gttggtgaac catgggatat   180
```

RAW SEQUENCE LISTING   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481   TIME: 08:51:06

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

```
     316 ccattgagtt gatggacact gtggagaggc tcacaaaaga gcactacaag aagactatgg   240
     318 agcaaaggtt caaagaaatg gtggccagca aagggcttga gt                       282
     321 <210> SEQ ID NO: 15
     322 <211> LENGTH: 290
     323 <212> TYPE: DNA
     324 <213> ORGANISM: Glycine max
     326 <220> FEATURE:
     327 <221> NAME/KEY: unsure
     328 <222> LOCATION: (1)..(290)
     329 <223> OTHER INFORMATION: unsure at all n locations
     330 <223> OTHER INFORMATION: Clone ID: 701036915H1
     332 <400> SEQUENCE: 15
     334 ctaaagcaaa cccagttgtc aagggctgaa aagcttgata agatctaaga tttgaagttg    60
     336 aagttccatg ccctgagatg aagttatgca caatttcatc atgaaatgat ccgagtttcc   120
W--> 338 ttcacatttt attggtgttc ttattatatt gttatatgtg gtgggtgact tgagtnattg   180
     340 gacatctctg caatttgaag gactctttca tgtgattggt gaaaatatat atgttggcca   240
     342 ctgttgtttt taagtgcggt ttggtgaaag ttggttggtg ttgttagctt               290
     345 <210> SEQ ID NO: 16
     346 <211> LENGTH: 170
     347 <212> TYPE: DNA
     348 <213> ORGANISM: Glycine max
     350 <223> OTHER INFORMATION: Clone ID: 701036916H1
     352 <400> SEQUENCE: 16
     354 gtttctctct acaagtccat atgtaaaatg gataacagaa agaaaaagaa aaatcacttt    60
     356 ggtttgagaa cttttttaaag tttatattaa ctgtgttaag gttcataaaa ctgtagactg   120
     358 atttgtgtga catgctccac agaaccttaa attttcctct attttgtcct               170
     361 <210> SEQ ID NO: 17
     362 <211> LENGTH: 302
     363 <212> TYPE: DNA
     364 <213> ORGANISM: Glycine max
     366 <220> FEATURE:
     367 <221> NAME/KEY: unsure
     368 <222> LOCATION: (1)..(302)
     369 <223> OTHER INFORMATION: unsure at all n locations
     370 <223> OTHER INFORMATION: Clone ID: 701036917H1
     372 <400> SEQUENCE: 17
W--> 374 ggccgtttcg aaagcnatga cgctatccac cgcgccctca ccgccaccgg cattagaaga    60
     376 ggagccgtta cctcacgacg gcgacgatta cgacggcatc gtttcactgg acgacgaggg   120
W--> 378 tttcccgtnc gcaattcccc gaatcaggaa cggcgtcgga aaanagcagt ttcgccgcgg   180
     380 attcactatc gcagacggaa ccgattggtc cttcgctgtt gttgtcgctg gaagatagta   240
     382 aacagagcga tttagcgcaa gattcgggga agaagatgaa gcaggccaat ctgttccaga   300
     384 tt                                                                   302
     387 <210> SEQ ID NO: 18
     388 <211> LENGTH: 294
     389 <212> TYPE: DNA
     390 <213> ORGANISM: Glycine max
     392 <223> OTHER INFORMATION: Clone ID: 701036918H1
     394 <400> SEQUENCE: 18
     396 gtttccgata tccaagggga aatggcattg gtgttcaact accaactgga aataaaggaa    60
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Use of n and / or Xaa has been detected in the
Sequence Listing. Review the Sequence Listing
to ensure a corresponding explanation is present
in the <220> to <223> fields of each sequence
using n or Xaa.

VERIFICATION SUMMARY　　　　　　　DATE: 10/10/2001
PATENT APPLICATION:　US/09/960,481　　　TIME: 08:51:07

Input Set : D:\15367C seq listing.txt
Output Set: N:\CRF3\10102001\I960481.raw

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L:10  M:270 C: Current Application Number differs, Replaced Current Application No
L:10  M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:70  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:74  M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:176 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:196 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:198 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:222 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:242 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:246 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:264 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:288 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:310 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:314 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:338 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15
L:374 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:378 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:428 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:446 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:452 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:490 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:492 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:538 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:560 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:562 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25
L:586 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:588 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:592 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:628 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28
L:652 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:654 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:29
L:696 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:702 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:720 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:728 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:744 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:746 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:752 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
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VERIFICATION SUMMARY   DATE: 10/10/2001
PATENT APPLICATION: US/09/960,481 TIME: 08:51:07

Input Set : **D:\15367C seq listing.txt**
Output Set: **N:\CRF3\10102001\I960481.raw**

L:772 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:792 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:35
L:816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:820 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36